

## Moving Test from June 2nd to May 31st

### Motors Lab - Magnetic Induction

#### Part A

Draw the solenoid and predict the direction the current will flow into the galvanometer. If the current goes into the positive end, the reading will be positive - needle goes right. Theory: the induced current creates a magnetic field that opposes the change.

#### Part B - Motor on a stand

V \_\_\_\_\_ I \_\_\_\_\_ when you hold the armature, so can determine  $r = V/I =$  \_\_\_\_\_

V(V)	I(A)	mass of washers	time(s) to lift 1.0m
		(start with max)	range of times

**disconnect** the motor from the power supply and connect it to the galvanometer.

return everything to initial setup for the next group.

Part C - not in the book  
make a monopole motor -

<https://www.youtube.com/watch?v=xbCN3EnYfWU>

$$V_{\text{back}} = \text{emf} - Ir$$

graph  $V_{\text{back}}$  vs velocity,  $v=d/t$